IN THE CLAIMS:

1. (Currently Amended) A storage system comprising:

a channel unit that transfers data sent from an upper-level system and transfers data to said upper-level system;

a plurality of cache units which are ~~connected~~ coupled to said ~~plurality of~~ channel ~~units~~ unit and in which data sent from said ~~plurality of~~ channel ~~units~~ unit is stored;

a plurality of control units that ~~is connected~~ are coupled to said plurality of cache units, and transfers or receives data to or from said plurality of cache units;

one or more first processor controlling transfer of data between said channel unit and said plurality of cache units;

one or more second processor controlling transfer of data between one or more of said plurality of control units and said plurality of cache units;

a disk device in which data sent from said plurality of control units is stored; and

a plurality of paths ~~connecting~~ coupling said plurality of control units ~~each control unit~~ to said plurality of cache units.

2. (Original) A storage system according to Claim 1, wherein said plurality of paths includes a plurality of first paths that links a first cache unit included in said plurality of cache units to said plurality of control units, and a plurality of second paths that links a second cache unit included in said plurality of cache units to said plurality of control units.

3. (Original) A storage system according to Claim 2, wherein said plurality of first paths and said plurality of second paths are independent of each other.

4. (Original) A storage system according to Claim 2, wherein said plurality of first paths is dedicated to communication between said first cache unit and said plurality of control units.

5. (Original) A storage system according to Claim 4, wherein said plurality of second paths is dedicated to communication between said second cache unit and said plurality of control units.

6. (Original) A storage system according to Claim 1, wherein among said plurality of paths, paths linking said plurality of control units and a predetermined cache unit included in said plurality of cache units are not the same as paths linking said plurality of control units and other cache unit included in said plurality of cache units.

7. (Original) A storage system according to Claim 2, wherein said plurality of first paths directly links said first cache unit to said plurality of control units.

8. (Original) A storage system according to Claim 7, wherein said plurality of second paths directly links said second cache unit to said plurality of control units.

9. (Original) A storage system according to Claim 2, wherein said plurality of first paths links said first cache unit to said plurality of control units on a point-to-point basis.

10. (Original) A storage system according to Claim 9, wherein said plurality of second paths links said second cache unit to said plurality of control units on a point-to-point basis.

11. (Currently Amended) A storage system according to Claim 1, wherein said disk device includes a plurality of disk drives, and said plurality of control units is ~~connected~~ coupled to said plurality of disk drives.

12. (Original) A storage system according to Claim 1, wherein said plurality of paths are signal lines linking said plurality of control units and said plurality of cache units.

13. (Original) A storage system according to Claim 1, wherein said plurality of

paths are used to write data, of which writing is requested by said upperlevel system, from said plurality of cache units into said disk device, and used to communicate data, of which writing is requested by said upper-level system, from said plurality of cache units to said plurality of control units.

14. (Original) A storage unit according to claim 1, wherein said plurality of paths are used to read data, of which reading is requested by said upperlevel system, from said disk device, and are used to communicate data, of which reading is requested by said upper-level system, from said plurality of control units to one of said cache units.

15. (Original) A storage system according to Claim 1, wherein said plurality of paths includes a number of paths equal to a sum of a number of control units included in said plurality of control units and a number of cache units included in said plurality of cache units.

16. (Original) A storage system according to Claim 2, wherein said plurality of first paths includes a number of paths equal to a number of control units included in said plurality of control units.

17. (Original) A storage system according to Claim 16, wherein said plurality of second paths includes a number of paths equal to a number of control units included in said plurality of control units.

18. (Original) A storage system according to Claim 1, wherein said plurality of paths includes a plurality of third paths that links a first control unit included in said plurality of control units to said plurality of cache units, and a plurality of fourth paths that links a second control unit included in said plurality of control units to said plurality of cache units.

19. (Original) A storage system according to Claim 18, wherein said plurality of third paths and said plurality of fourth paths are independent of each other.

20. (Original) A storage system according to Claim 18, wherein said plurality of third paths is dedicated to communication between said plurality of cache units and said first control unit.

21. (Original) A storage system according to Claim 20, wherein said plurality of fourth paths is dedicated to communication between said plurality of cache units and said second control unit.

22. (Original) A storage system according to Claim 18, wherein said plurality of third paths directly links said plurality of cache units to said first control unit.

23. (Original) A storage system according to Claim 22, wherein said plurality of fourth paths directly links said plurality of cache units to said second control unit.

24. (Original) A storage system according to Claim 18, wherein said plurality of third paths links said plurality of cache units to said first control unit on a point-to-point basis.

25. (Original) A storage system according to Claim 24, wherein said plurality of fourth paths links said plurality of cache units to said second control unit on a point-to-point basis.

26. (Original) A storage system according to Claim 18, wherein said plurality of third paths includes a number of paths equal to a number of said plurality of cache units.

27. (Original) A storage system according to Claim 26, wherein said plurality of fourth paths includes a number of paths equal to a number of said plurality of cache units.

28. (Original) A storage system according to Claim 1, wherein said plurality of paths includes a fifth path that links a first control unit included in said plurality of control units to a first cache unit included in said plurality of cache units, and a sixth path that links said first control unit to a second cache unit included in said plurality of cache units.

29. (Original) A storage system according to Claim 28, wherein said fifth path and said sixth path are independent of each other.

30. (Original) A storage system according to Claim 28, wherein said fifth path is dedicated to communication between said first cache unit and said first control unit.

31. (Original) A storage system according to Claim 30, wherein said sixth path is dedicated to communication between said second cache unit and said first control unit.

32. (Original) A storage system according to Claim 28, wherein said fifth path directly links said first cache unit to said first control unit.

33. (Original) A storage system according to Claim 32, wherein said sixth path directly links said second cache unit to said first control unit.

34. (Original) A storage system according to Claim 28, wherein said fifth path links said first cache unit to said first control unit on a point-to-point basis.

35. (Original) A storage system according to Claim 34, wherein said sixth path links said second cache unit to said first control unit on a point-to-point basis.

36. (Original) A storage system according to Claim 28, wherein a number of paths included as said fifth path and said sixth path is equal to a number of units included as said plurality of cache units.

37. (Original) A storage system according to Claim 1, wherein said plurality of paths includes a seventh path that links a first cache unit included in said plurality of cache units to a first control unit included in said plurality of control units, and an eighth path that links said first cache unit to a second control unit included in said plurality of control units.

38. (Original) A storage system according to Claim 37, wherein said seventh path and said eighth path are independent of each other.

39. (Original) A storage system according to Claim 37, wherein said seventh path is dedicated to communication between said first cache unit and said first control unit.

40. (Original) A storage system according to Claim 39, wherein said eighth path is dedicated to communication between said first cache unit and said second control unit.

41. (Original) A storage system according to Claim 37, wherein said seventh path directly links said first cache unit to said first control unit.

42. (Original) A storage system according to Claim 41, wherein said eighth path directly links said first cache unit to said second control unit.

43. (Original) A storage system according to Claim 37, wherein said seventh path links said first cache unit to said first control unit on a point-to-point basis.

44. (Original) A storage system according to Claim 43, wherein said eighth path links said first cache unit to said second control unit on a point-to-point basis.

45. (Original) A storage system according to Claim 37, wherein a number of paths included as said seventh path and said eighth path is equal to a number of units included as said plurality of control units.

46. (Original) A storage system according to Claim 1, wherein said plurality of paths includes a ninth path that links a first control unit included in said plurality of control units to a first cache unit included in said plurality of cache units, and a tenth path that links a second control unit included in said plurality of control units to a second cache unit included in said plurality of cache units.

47. (Original) A storage system according to Claim 46, wherein said ninth path and said tenth path are independent of each other.

48. (Original) A storage system according to Claim 46, wherein said ninth path is dedicated to communication between said first cache unit and said first control unit.

49. (Original) A storage system according to Claim 48, wherein said tenth path is dedicated to communication between said second cache unit and said second control unit.

50. (Original) A storage system according to Claim 46, wherein said ninth path directly links said first cache unit to said first control unit.

51. (Original) A storage system according to Claim 50, wherein said tenth path directly links said second cache unit to said second control unit.

52. (Original) A storage system according to Claim 46, wherein said ninth path links said first cache unit to said first control unit on a point-to-point basis.

53. (Original) A storage system according to Claim 52, wherein said tenth path links said second cache unit to said second control unit on a point-to-point basis.